

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012599**Date Inspected:** 10-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower**Summary of Items Observed:**

CWI Inspector: Mr. Gong Liang Zhu, Mr. Geng Wei and Mr. Li Yong

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

Tower Bay 11

This QA Inspector observed ZPMC welder Mr. Chen Shang Chun, stencil 046704 is using welding procedure specification WPS-B-T-3212-TC-U5b-1 to make shielded metal arc weld WSD1-TL5-4B/F-33A between tower lift 5 skin plate A and skin plate E inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector observed ZPMC QC has recorded a welding current of 265 amps and this QA Inspector also measured a welding current of approximately 265 amps. Mr. Chen Xhang Chun appears to be storing his welding electrodes in a heated container. This QA Inspector observed Mr. Chen Shang Chun appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications. See the photographs below for additional information concerning welding of West Tower Lift 5.

This QA Inspector observed ZPMC welder Mr. Cui Guozhong, stencil 040656 is using welding procedure specification WPS-B-T-3212-TC-U5b-1 to make shielded metal arc weld WSD1-TL5-4B/F-33A between tower

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lift 5 skin plate A and skin plate E inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector observed ZPMC personnel have recorded a welding current of 256 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Mr. Cui Guozhong appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Hu Xing Ping, stencil 049099, is using welding procedure specification WPS-B-T-3212-TC-U4b-1 to make shielded metal arc weld WSD1-TL5-4B/F-39A between tower lift 5 skin plate B and skin plate C inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector observed ZPMC QC has recorded a welding current of 252 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Mr. Hu Xing Ping appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Yang Lei, stencil 040690 is using welding procedure specification WPS-B-T-3212-TC-U4b-1 to make shielded metal arc weld WSD1-TL5-4B/F-39A between tower lift 5 skin plate B and skin plate C inside surfaces. This QA Inspector observed that the base material is being heated with an electric heater and ZPMC QC personnel are monitoring the base material temperatures. This QA Inspector observed ZPMC QC has recorded a welding current of 271 amps and the welding electrodes are being stored in a heated container. This QA Inspector observed Mr. Yang Lei appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

OBG Bays 1 through 9

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 1 through 9.

OBG Bays 13 and 15

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 13 or 15.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Jiang Shi Zhen stencil 205097 has recently used the shielded metal arc welding process to tack weld various floor beams, longitudinal diaphragms and other components together near panel point 112 OBG segments 12CW. This QA Inspector observed Mr. Jiang Shi Zhen appears to be certified to make these welds. This QA Inspector did not observe this welder performing any welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Fang Long Pu stencil 049128 is using shielded metal arc weld process to tack weld 12BE corner assembly plate CB3003 to deck plate DP3022. This QA Inspector observed that Mr. Fang Long Pu has a torch adjacent to where he had recently completed tack welding. This QA Inspector measured a welding current of approximately 260 amps and the welding electrodes are being stored in a heated

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container. This QA Inspector observed Mr. Fang Long Pu appears to be certified to make this weld. Items observed by this QA Inspector appear to be progressing in compliance with project specifications.

Segment Trial Assembly

This QA Inspector observed ZPMC welder Mr. Hu Yanming, stencil 062092 is using shielded metal arc procedure WPS-345-SMAW-2G(2F)-Repair to make repair welds to various stiffener hold back welds on OBG segment 6CE bottom plate between panel points 44 and 45 adjacent to where cross beam CB6 is to be attached. This QA Inspector observed the welding electrodes are being stored in a portable rod oven which is connected to an electric power cable. This QA Inspector observed one person with a torch appears to be preheating the base materials prior to commencement of welding. This QA Inspector measured a welding current of approximately 170 amps and Mr. Hu Yanming appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

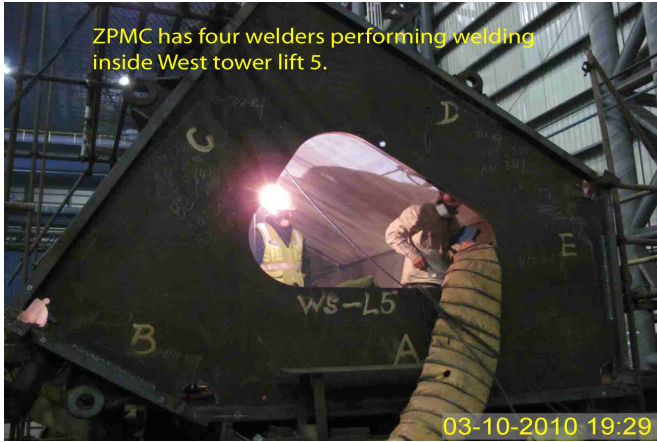
This QA Inspector observed ZPMC welder Mr. Wang Changfa, stencil 058102 is using shielded metal arc procedure WPS-345-SMAW-3G(3F)-Repair to make repair welds to various stiffener hold back welds on OBG segment 6CW side plate at the end of the OBG adjacent to where OBG segment 7AW will be attached. This QA Inspector observed the welding electrodes are being stored in a portable rod oven which is connected to an electric power cable. This QA Inspector observed one person with a torch appears to be preheating the base materials prior to commencement of welding. This QA Inspector measured a welding current of approximately 180 amps and Mr. Wang Changfa appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Chen Zheng Hua, stencil 220067 is using shielded metal arc procedure WPS-345-SMAW-1G(1F)-Repair to make repair welds to various locations where temporary alignment plate welds had been attached on the end of OBG 6CE top deck adjacent to where OBG segment 7AE will be attached. This QA Inspector observed the welding electrodes are being stored in a portable rod oven which is connected to an electric power cable. This QA Inspector observed one person with a torch appears to be preheating the base materials prior to commencement of welding. This QA Inspector observed Mr. Chen Zheng Hua appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



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Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
